

Date: Tuesday, 4/25/2006 8:42:10 AM  
 User: Kim Johnston

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	JACK SADDLE
<b>Job Number</b> :	26814		
<b>Estimate Number</b> :	11177		
<b>P.O. Number</b> :	NIA	<b>Part Number</b> :	D2281
<b>This Issue</b> :	4/25/2006	<b>S.O. No.</b> :	NIA
<b>Prsht Rev.</b> :	NC	<b>Drawing Number</b> :	D2281 REV G
<b>First Issue</b> :	NIA	<b>Project Number</b> :	N/A
<b>Previous Run</b> :	25132	<b>Drawing Revision</b> :	G
		<b>Material</b> :	NIA
<b>Written By</b> :	<i>See Comment Below</i>		<b>Due Date</b> :
<b>Checked &amp; Approved By</b> :	<i>06.04.25</i>		<b>Qty:</b> 100 <b>Um:</b> Each
<b>Comment</b> :	Est Rev:A Removed from 9 Digit 05-12-02 JLM		

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 1090 Email or Ship Dxf file to vendor

Laser cut as per Dwg D2281

Material release note required.

*CY 06/04/25**(100)*

2.0	D2281F	Jack Saddle
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 100.0000 Each(s)  
 Jack Saddle

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Receive &amp; Inspect For Transit Damage

Ensure material certification is attached

*AL 06/05/09 98*

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

*0605-10 count of 98*

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: Deburr

*H-M 06/05/19 (99)*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: DP Date: 06/06/07  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Tuesday, 4/25/2006 8:42:10 AM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: JACK SADDLE

Job Number: 26814

Part Number: D2281

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Form as per D2281 using D2281-T2

SB 06/06/05 99

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06-06-05 55

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: WS21

CPL 06-06-06

9.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06/06/07 99

Job Completion



21 00.06.07

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

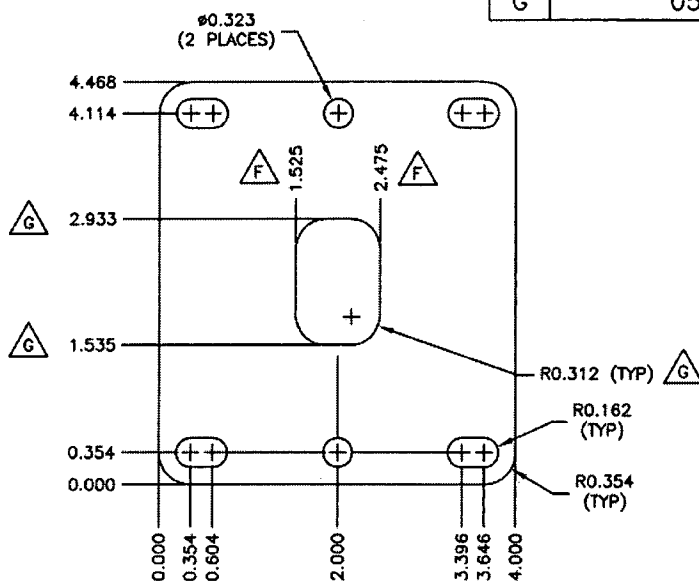
**NOTE:** Date & initial all entries



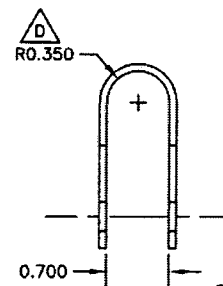
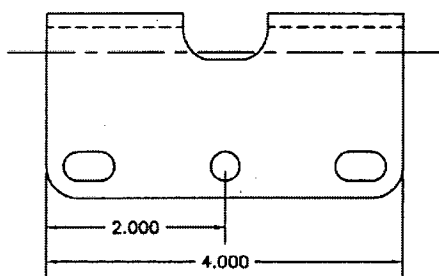
DESIGN BW	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2281	REV. G SHEET 1 OF 1
DATE 05.06.07	TITLE JACK SADDLE		SCALE 1:2
A	94.10.14	NEW ISSUE	
B	94.10.18	DIMENSION WAS 2.878	
C	94.11.04	ADD TOOLING NOTCH	
D	98.03.27	R0.350 WAS R0.280	
E	04.11.18	REMOVE TOOLING NOTCHES	
F	05.03.16	REDESIGN FLAT PATTERN	
G	05.06.07	REDESIGN FLAT PATTERN	

RELEASED

05/08/11



FLAT LAYOUT



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 26814

**D2281 JACK SADDLE**

- 1) MATERIAL: 304/316 SS, 0.080 THICK (REF DART SPEC. M304S14GA)
- 2) FINISH: NONE
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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Paragraph 4.3 by TÜV Anlagentechnik GmbH (Required body according to EN10204-3.1B)  
Inspection Certificate EN10204-3.1B

P60124PC001

<b>Shanxi Taiyuan Stainless Steel CO.,LTD Member of Taiyuan Iron and Steel (Group) Co.,LTD</b> NO.2 jiancaoping, Taiyuan, Shanxi, P.R.China TEL: (0351)3013328 FAX: (0351)3017816 http://www.tisco.com.cn E_mail: tgbxg@tisco.com.cn		<b>MILL TEST CERTIFICATE</b>	
		MATERIAL	AISI304 No.2B Finish
		SPECIFICATION	ASTM A240/A480 ASME SA240/SA480
		L/C NO.	
		CERTIFICATE NO.	20051187
		DATE OF ISSUE	//

CUSTOMER	CONTRACT NO.	DATA OF
OLBERT	1187	2005/11/20

Product	Melting furnace	Inspector's stamp	Mark of the Manufacturer
COIL	E+VOD		Shanxi Taiyuan Stainless Steel Co., Ltd

NO.	Heat No.	Coil No.	Quantity	Dimensions	Weight (kg)
8.	4505286	5A9-495-1ZD	1	11GA x 48 x C	7009
9	Y506019	5A9-485-1ZB	1	11GA x 48 x C	6679
10	4505044	5A9-458-1ZY	1	14GA x 48 x C	5461
11	4505274	5A9-450-1ZD	1	11GA x 48 x C	4832
12	4505271	5A10-44-3ZJ	1	16GA x 48 x C	8906
13	4505050	5A10-53-3ZJ	1	16GA x 48 x C	8617
14	4505393	5A10-70-4ZY	1	14GA x 48 x C	8642

Chemical Composition											
Heat No.	C	Si	Mn	P	S	Cr	Ni	Cu	Al	Mo	N
4505286	0.060	0.470	1.400	0.017	0.003	18.170	8.020	0.010	0.010	0.010	0.035
Y506019	0.050	0.350	0.990	0.032	0.004	18.300	8.090	0.440	0.006	0.120	0.070
4505044	0.060	0.450	1.370	0.018	0.002	18.200	8.120	0.010	0.010	0.010	0.050
4505274	0.060	0.520	1.320	0.017	0.002	18.150	8.120	0.010	0.010	0.010	0.045
4505271	0.060	0.470	1.320	0.016	0.003	18.170	8.110	0.010	0.010	0.010	0.045
4505050	0.060	0.480	1.290	0.014	0.002	18.220	8.040	0.010	0.010	0.010	0.045
4505393	0.070	0.480	1.260	0.017	0.002	18.200	8.070	0.010	0.010	0.010	0.040

Mechanical Properties								
Test No.	Tensile R <sub>m</sub> N/mm <sup>2</sup>	R <sub>p0.2</sub> Yield <sub>0.2%</sub> N/mm <sup>2</sup>	R <sub>p1.0</sub> Yield <sub>1%</sub> N/mm <sup>2</sup>	Elongation A5%	Corrosion Tests	Hardness		
						HRB	HV	HRC
4505286-T	635	282		53		84 - 83		
Y506019-T	650	266		53		88		
4505044-T	675	307		59		83 - 83		
4505274-T	690	299		56		86 - 85		
4505271-T	700	326		54			188 - 186	
4505050-T	695	297		57			190 - 188	
4505393-T	680			60		86 - 85		

Surface and dimensions controlled:	
Work Inspector	

P60124PC001V 3042B .062X48 HT 4505271 4505050



New Zealand Steel Limited  
Glenbrook, 5500 Auckland  
Postal: Private Bag 52121, Auckland, New Zealand  
Telephone: (09) 375 8999 / 375 8111 Auckland  
(09) 235 6389 / 235 3434 Waikato  
Fax: (09) 375 8909

# TEST CERTIFICATE

Ref: 5512/2003

NEW ZEALAND  
STEEL

FAX (09) 375 0999

CUSTOMER		Wilksons	SPECIFICATION		ASTM A1011 CS Type B		CERTIFICATE No		TC124648																
CUSTOMER O/N		96-JIN-108	PRODUCT		HOT ROLLED PICKLED & OILED		PAGE		1 of 1																
MILL O/N		518691	DIMENSIONS		0.104" x 48" x Coil		DATE		17 January 2006																
			MECHANICAL TESTS (TEST SPECIFICATION - )																						
PACK NUMBER	(Sample) HEAT No	CHEMICAL COMPOSITION PERCENT														BEND 180°	YIELD	T.S.	WELONG GL=	HARDNESS	r ( )	LENGTH (ft)			
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B x10020								N2 x100	CEI ( )	
		x100																							
HP-997711-00	646664	6	1	20	9	19												Good							942
HP-997712-00	646664	6	1	20	9	19												Good							961
HP-997713-00	646846	5	TR	20	11	19												Good							955
HP-997714-00	646846	5	TR	20	11	19												Good							955
HP-997715-00	646664	6	1	20	9	19												Good							955
HP-997716-00	646664	6	1	20	9	19												Good							958
HP-997717-00	646846	5	TR	20	11	19												Good							958
HP-997718-00	646846	5	TR	20	11	19												Good							958
HP-997719-00	646846	5	TR	20	11	19												Good							958
HP-997720-00	646846	5	TR	20	11	19												Good							958
HP-997721-00	646846	5	TR	20	11	19												Good							958
HP-997722-00	646846	5	TR	20	11	19												Good							958

YIELD (A)=0.2% PROOF STRESS (D)=LOWER YIELD STRESS	GAUGE LENGTH (GL)		PLASTIC STRAIN RATIO (r) (A)=0 (B)=r90 (C)=r45 (D)=(r0+r90)/245 / 4	IMPACT TEST (A)=10mm x 10mm (B)=7.5mm x 10mm	(C)=5mm x 5mm (D)=2.5mm x 10mm (E)=5mm x 10mm	CARBON EQUIVALENT VALUE (CE) (A)=C+Mn/6 (B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15	(C)=C+Mn/6+S/24 (D)=
	(A)=200mm (C)=80mm (D)=50mm	(E)=2" (F)=8"					

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Atish Misra*  
QC METALLURGY

5504180011-2 T M INDUSTRIAL (551122ME003.546846)

